



COALITION FOR U.S. SEAFOOD PRODUCTION

A diverse group of seafood industry stakeholders representing the full value chain banded together in 2013 to form the Coalition of U.S. Seafood Production (CUSP). CUSP is made up of aquaculture and feed producers, retail and restaurant customers, researchers, technology and feed suppliers, public aquariums and other not-for-profit organizations. The U.S. has enormous potential to expand domestic seafood production through aquaculture. This growth will create jobs from working water fronts to the agricultural heartland; make safe, nutritious, sustainable domestic seafood available to U.S. consumers; complement wild catch rebuilding efforts with farmed seafood and reduce the trade deficit while strengthening national food security.

After considerable discussion and review CUSP would like to offer the following comments on the Gulf of Mexico Fisheries Management Council Aquaculture FMP. Although the current version is an improvement over previous versions the proposal still has a number of serious flaws that should be changed during the rule making process.

1. The current draft (pages 11, 12) requires an applicant have a valid federal ACOE and EPA NPDES permits PRIOR to the issuance of a Gulf of Mexico Aquaculture permit. ACOE and EPA typically require permit applicants to demonstrate "proof of Tenure or ownership" as part of their application. In both cases the agencies look for an aquaculture lease or permit for a specific location as the Proof of Tenure. This two way requirement for acquisition of the other agencies permits PRIOR to granting of any of the agencies permits creates a catch 22 for both the agencies and the applicant. Furthermore the situation creates a barrier to investment because no investors are going to capitalize a project without all the permits.

Solution: The RA should be directed to negotiate a MOU between NOAA, ACOE and EPA establishing that ACOE and EPA will accept a completed application for a Gulf of Mexico Aquaculture Permit as proof of tenure for their permit application process. Additionally the aquaculture FMP should include language that explicitly indicates that completed applications for an ACOE and EPA NPDES permits shall be taken as prima fascia evidence of a good faith effort to acquire these permits and should allow the Gulf of Mexico aquaculture permit application to move forward. Finally the rule should make clear that all other permits should be acquired prior to deployment, rather than prior to issuance of the NOAA permit.

2. The current draft (page 12) requires that an applicant agrees to "immediately remove all components of the aquaculture facility" if an "OIE reportable pathogen or pathogen identified as reportable pathogens in the National Aquatic Animal Health Planis found at the facility". CUSP agrees that the RA must have the tools to respond to the occurrence of a reportable pathogen at a facility. The requirement to immediately remove ALL components of a facility is extreme and would be only one of many options a resource manager, animal health professional and/or farmer might use to respond to a disease situation. Part (L) also states that the detection of any of these pathogen constitutes a permit condition violation. This means that if a pathogen from the wild infects a farm through no fault of the farmer and even if said farmer has followed all the required best management practices, rules and regulations the farmer has committed a permit violation. It is one thing to require a farmer to comply with the aquatic animal health recommendations of animal health professionals and regulators it is extreme to mandate up front what those actions shall be and force a farmer to a priori admit a permit violation that could be subject to fines and criminal conviction. This section should be rewritten.

Solution: Suggested language: "(L). Documentation certifying that the applicant agrees to work with the appropriate animal health regulatory authorities to develop and implement a response plan in the event of the detection of a reportable pathogen defined as such by the OIE and/or National Aquatic Animal Health Plan. The response plan may include a number of different animal health management methods including but not necessarily limited to, increased surveillance, selected cage depopulation, full facility depopulation, fallowing of the facility and facility disinfection and cleaning. The detection of a reportable pathogen does not in and of itself constitute a permit violation when the farmer has implemented all required best management practices and complied with all permit and regulatory requirements."

3. The current draft contains (Page 13-14) a requirement that all broodstock and any juveniles they produce for the farm are from the Gulf of Mexico AND the "same population or sub-population of fish where the aquaculture facility is located". The FMP contains no definition of a population or sub-population. Nor does it indicate how a farmer proves compliance? The draft language is imprecise and unclear. This section needs to be rewritten.

Solution: suggested language: "(N) Certification by the applicant that all broodstock used to provide juveniles to the aquaculture facility were originally harvested from U.S. waters of the Gulf and that each individual broodstock was marked or tagged at the hatchery to allow for identification of those individuals used in spawning. Records of specifically where those broodstock were collected must be maintained as long as the decedents of those broodstock are being used at the permitted aquaculture facility."

4. The current draft indicates (Page 19) that the duration of permits issued will initially be for 10 years with subsequent 5 years renewals. This permit period is too short and CUSP questions why there should be any requirement to renew a permit at all if a permittee has operated responsibly with no major violations. Furthermore the current draft is silent on whether a permit is still valid if it has expired but a renewal application has been filed.

Many aquaculture production cycles are three years or longer. A 10 year permit allows relatively few production cycles in which to develop the new techniques required for offshore production. Offshore farms will require large capital investments. Permit holders must have adequate time to develop new techniques and pay off their large capital investment. The permit period should be increased. Without this certainty of tenure, farmers will be unable to raise the necessary levels of capital to develop offshore farms

Solution: If permits are for a limited period and renewal required then permits should be for a minimum of 25 years. Renewal should be for the same period, NOT a shorter one. The renewal clause (Page 21. (vi)) should contain an explicit statement stating that as long as the current permit holder is not in violation of any permit conditions, and has filed a completed renewal application in a timely fashion the permit shall be considered valid and in effect during the time it takes the RA or permitting agency to process the renewal application.

5. The current draft (page 43) limits the production of a single entity to 12.8 million pounds whole weight per year. This is a relatively small farm by modern standards and is problematic if you are developing an offshore farm in the EEZ where the scale of the farm has to be large enough to justify the higher investment necessary. This limit should be significantly increased.

Solution: Raise the limit on production by a single entity to 20 million pounds per year.

Further specific CUSP comments:

Page 6 Creation of Gulf Aquaculture Dealer Permit; it is unclear why a new federal dealer permit is required instead of the use and enforcement of current seafood dealer permits. Later in the document (page 42) reporting requirements are established which are invasive, duplicative, unnecessary and require the disclosure of commercial proprietary information. The rule should simply regulate the traceability of aquacultured catch through Chain-of-Custody approaches. These are now widely employed in certified fisheries and aquaculture operations, and will eventually become SOP for all operations. The Rules should just insist on a CoC provision.

Page 13: Requirement for the establishment of a standby trust fund. It is unclear why this is necessary as long as the permittee maintains a valid assurance bond.

Page 13-14. Requirement that all broodstock and any juveniles they produce for the farm are from the Gulf of Mexico AND the “same population or sub-population of fish where the aquaculture facility is located”. The FMP contains no definition of a population or sub-population. How does a farmer prove compliance? Is this based on allelic frequency? As distributions vary at what point is a broodstock no longer a member of the same population or sub-population? As subsequent generations of hatchery juveniles are produced and as allelic frequency shifts due to domestication and selection at what point is a farmer in violation of this provision? Without baseline genetic data on wild populations as well as their distribution and migration patterns how does a farmer “prove” they are in compliance? Is it sufficient to say we originally caught them on the same site as we are installing the farm? What if the population or sub-population is from the Gulf of Mexico but does not naturally occur at the site the farm is being installed in? Suppose the population or sub-population that does naturally occur at the farm site is not suitable for farming due to some type of population characteristic (slow growth or increased disease susceptibility for example). Does that mean the farmer has to use that population or sub-population anyway or move the farm? Suppose the locally occurring population or subpopulation moves due to fishing pressure or environmental changes does the farmer have to move the farm or stop farming? This section needs to be rewritten.

Suggested language: (N) Certification by the applicant that all broodstock used to provide juveniles to the aquaculture facility were originally harvested from U.S. waters of the Gulf and that each individual broodstock was marked or tagged at the hatchery to allow for identification of those individuals used in spawning. Records of specifically where those broodstock were collected must be maintained as long as the decedents of those broodstock are being used at the permitted aquaculture facility.

Page 14. (O) The requirement that applicants certify that no GMO or Transgenic organisms are “used” or possessed at the facility. As written this would appear to preclude the “use” of GMO or transgenic feed ingredients. Was that the intention? That is to say if a feed with a GMO ingredient is used at the facility it will be “used or possessed at the facility.

Suggested language: (O) Certification by the applicant that no living genetically modified organism (GMO) or living transgenic organisms are used at the aquaculture facility.

Page 15. Requirement that anyone purchasing farmed products from a permitted Gulf of Mexico aquaculture facility have a Gulf Aquaculture dealer Permit. As stated above, it is unclear why a new federal dealer permit is required instead of the use and enforcement of current seafood dealer permits. Later on in the document (page 42) reporting requirements are established which are invasive, duplicative, and unnecessary and require the disclosure of commercial proprietary information.

Page 17 (ii). The review and notifications of Gulf Aquaculture Permit applications contains multiple deadlines and limited time periods for applicants but none for reviewing agencies or the RA. The Aquaculture FMP should contain mandatory time periods within which the RA will

1. Deem whether the application is complete within 30 days of its submission and if it is deemed incomplete inform the applicant of such determination.
2. After the 45 day public comment period is complete the RA should make a decision as to the disposition of the application within 90 days.

Page 23. Requirement that an aquaculture facility permit holder inform the RA of any change in operations outlined in paragraph (b) (2) (j) on page 12. This requirement means that ANY time a permit holder makes ANY change to their “equipment and methods used for feeding, transporting, maintaining and removing cultured species from the aquaculture systems” they must inform the RA within 30 days. While it makes sense to ask the permittee to inform the RA of any significant or major changes that fundamentally change the nature of the operation and any potential associated impacts or risks associated with that change, the current language would put a permit holder in technical violation of their permit if they changed the mesh size on a harvest seine, changed the brand of their grading equipment or replaced their farm management software. If the permittee does not report those changes then the FMP says clearly “aquaculture operations may no longer be conducted under the permit”. This section is too prescriptive, and imprecise, it should be reworded.

Suggested language: (xi). Change in application information. An aquaculture facility owner or aquaculture dealer must notify the RA within 30 days after any significant change in the applicable application information specified in paragraphs (b) (1) or (2) of this section that substantively changes the nature of the permitted facility and operations and elevates the potential risk of detrimental effect as defined in this FMP on Page 4. Routine changes to the permitted facility or operations based on improved technologies or methods do not constitute substantive changes.

Page 24. (c) (1) Prohibition of locating aquaculture facilities within marine protected area, marine reserve, Habitat Area of Particular Concern, Special management zone, permitted artificial reef area or a coral area as specified by 622.2. There are two problems with this provision;

A. This provision contains no prohibition of establishment of these areas surrounding or congruent with a permitted aquaculture facility that was previously permitted. What happens if any of these types of areas are established subsequent to the permitting of an aquaculture facility? Can the aquaculture facility permit be revoked? Can the aquaculture facility permit be renewed when it comes up for renewal? This needs to be clarified.

B. Not all MPAs are inconsistent with aquaculture. For example, the Blue Ocean Mariculture site in Hawaii (formerly operated by Kona Blue Water Farms) is located within the Hawaii Islands Humpback Whale National Marine Sanctuary, and there has been no negative interaction between the humpback whales and the net pens. Indeed, some MPAs may benefit from aquaculture activities, as the net pens provide structure, and will aggregate fish, and provide the fish with an enhanced refuge. Likewise shellfish operations may provide benefits to these protected areas. The rule should be altered to allow potential positive and negative interactions for a specific site in a specific MPA to be assessed during the permit application process, and for these issues to be decided on an ad hoc, case-by-case basis.

Page 24. Requirement of 1.6 miles distance between aquaculture facilities. What is this number based on? It is arbitrary and should be dropped.

Page 24. (c) (3) Requirement that the permitted aquaculture site be twice as large as the combined area of the aquaculture system. This requirement is established to facilitate fallowing but it fundamentally misunderstands how fallowing works and will result in much larger areas being applied for than is necessary. Rotation within a site is difficult and often ineffective. If incentivizing fallowing is the goal then applicants should be required to apply for multiple sites with significant distance between them so as to establish hydrological independence between the sites. The rule should instead be altered to allow for a single commercial entity to control up to four discrete farm sites, so long as they are operated on a rotational basis (preferably under an Area Management Plan), with regular fallowing.

Page 26. Prohibition of recreational fishing within the restricted access zone. While safety, liability biosecurity and security are always a concern to farmers the blanket prohibition of recreational fishing around the farm ensures there will be resistance to the farm from the recreational fishing community. It should be left up to the farmer as to what access they are going to allow and how they will control any risks such access may present to their operations. Fishing is not always incompatible around net pens. For example, in Hawaii and Maine, both commercial and recreational fishermen routinely operate around the perimeter of the grid-moored net pens.

Page 29. Requirement that allowable species must be placed within the permitted facility within 3 years. This requirement is reasonable if there is an existing hatchery and broodstock that can produce the juveniles of the allowable species. If however a hatchery has to be built and broodstock collected this time frame is VERY problematic. Who is going to invest in building a hatchery and collecting broodstock if there is no permitted aquaculture facility for them to be sold to?

Equally who is going to invest in a permitted aquaculture facility if there is no permitted hatchery? For new species for which there is no approved hatchery and broodstock this time period must be longer, 6-10 years would be reasonable.

Page 29. Requirement that each allowable aquaculture system have an electronic locating device attached to it. This is expensive and excessive requirement. Are all other types of equipment placed in the EEZ required to do this?

Page 30. Requirements for certification of broodstock origin and collection of genetic samples. See comments above regarding origins of broodstock. Who is going to test the tissue samples and against what genetic baseline dataset?

Page 31. Monitoring and reporting compliance. The current draft of the FMP does not specify all parameters to be monitored or what the minimum components of a sampling scheme would be. It is therefore impossible to determine what if any duplication there may be with the ACOE and EPA NPDES permit monitoring requirements. The FMP should contain language that specifically says it will NOT require additional monitoring of parameters already required in the ACOE and/or the EPA NPDES permits and that data collected under those permits will be considered valid for any FMP permit monitoring requirements.

Page 32. Requirement to stow fishing gear while transporting cultured organisms. What does this have to do with aquaculture? Does anyone seriously think a permittee is going to fish while they are transporting live fish? This provision should be modified to exclude this requirement if the vessel is transporting live fish.

Page 33. Prohibition of the possession of any wild fish within the boundaries of an aquaculture facility's restricted access zone. Obviously this is targeted to prevent the illegal harvest of wild fish within the boundaries of the aquaculture facility. Having said that, if wild fish set up residence within the restricted access zone does that constitute "possession" by the facility owner? This section should include a clear statement that the presence of live wild fish within the restricted access zone does NOT constitute "possession".

Page 33. Requirement to land harvested fish between 6 am and 6 pm. This is an unreasonable restraint of trade. As long as fish are harvested from a permitted facility and sold to a permitted dealer why place this restriction on operators. If the weather is bad or equipment breaks and you miss the 6pm deadline do you have to wait offshore for 6 am? This could be a safety issue if nothing else. Harvest timing is often a function of tides and currents and weather, and then it might be a 5 or 10 hour steam back to harbor. The intent of this rule is presumably to allow inspection of the harvest, to prevent regulated species being landed as "aquaculture catch", but there are numerous other ways to differentiate wild caught from aquacultured fish (body fat content, body shape, hook damage). Instead, this rule might more reasonably demand notification of the time of docking, and then allow for random inspection by NOAA officers.

Page 37. Requirement to report that no escapes have happened on an annual basis. Why require permittees to report that nothing has happened on an annual basis? This makes unnecessary work for both the permittee and the regulatory authority. Eliminate this provision.

Page 38. Requirement to report suspected findings of reportable pathogens. Disease testing methods are evolving rapidly. During the early to mid-phases of the development of a new method or a method for a new pathogen, the incidence of false positives can be quite high. The FMP should require the use of more than one testing method to trigger a "suspected" positive classification. Furthermore the FMP should specifically assign responsibility for the review of pathogen testing results and development of any management responses to the USDA APHIS who are the U.S. recognized competent authority under OIE.

Page 38. Requirement to report that no reportable pathogens were detected on an annual basis. Why require permittees to report that nothing has happened on an annual basis? This makes unnecessary work for both the permittee and the regulatory authority. Eliminate this provision

Page 39. Requirement to report every harvest, and port of landing 72 hours prior to the harvest. Is this required of wild harvesters? Again the facility is permitted the boat is permitted and the dealer being sold to is permitted what more do you need?

Page 40. Requirement to report that no reportable entanglements have occurred on an annual basis. Why require permittees to report that nothing has happened on an annual basis? This makes unnecessary work for both the permittee and the regulatory authority. Eliminate this provision.

CUSP

COALITION FOR U.S. SEAFOOD PRODUCTION

The Coalition of U.S. Seafood Producers (CUSP) is committed to expanding seafood production in the United States. The group, made up of aquaculture and feed producers, retail and restaurant customers, researchers, technology and feed suppliers, public aquariums and other not-for-profit organizations, aims to provide expertise and support for government action that will create growth in aquaculture development.

In the United States, we are on the verge of expanding domestic seafood production. Creating jobs from working water fronts to the agricultural heartland; making safe, nutritious, sustainable domestic seafood available to U.S. consumers; complementing wild catch rebuilding efforts with farmed seafood; and reducing the trade deficit attributable to seafood are the driving factors.

The 2013 National Ocean Policy Implementation Plan (NOP) and the Strategic Plan for Federal Aquaculture Research provide a backdrop for implementing policies that will allow the seafood industry to grow and that will support technological innovation.

CUSP TOP PRIORITIES:

1) Finalization of the Gulf Regional Fisheries Management Plan

On February 8, 2013, the Gulf Council approved changes to the proposed rule for the Gulf Aquaculture. More than a year later, the rule has not yet been published for public comment.

The Gulf of Mexico Fishery Management Council has thoroughly vetted and taken an ecosystem management approach in developing the Fishery Management Plan. We support this plan as the first step to realizing aquaculture development and growth in Federal waters.

2) Develop commercial-scale aquaculture demonstration project(s)

CUSP members recognize the critical need to show that aquaculture is a largely untapped domestic enterprise that can showcase environmental stewardship and commercial viability. To advance this effort, we need Federal support to develop commercial-scale demonstration project(s) that are:

- Business driven and reflect industry needs that will be sufficient in scale to;
 - Demonstrate environmental responsibility;
 - Quantify the economic impact;
 - Provide funding sources with the assurances they need.
- Receive permitting for life of the project at a sufficient sized pilot phase to demonstrate above requirements
- Not be contingent on federal funding;
- Incorporate relevant research to provide the basis for subsequent permitting decisions and industry expansion;
- Include an education component to motivate further support;
- Identify and fill identified data gaps that are of concern to regulatory agencies;
- Are not hindered by “proprietary information” constraints.



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QUICK STATS ON FOOD AND AQUACULTURE

LIMITS TO LAND FOOD PRODUCTION ARE EMERGING

- Land covers less than 25% of the earth's surface; of that area less than 40% is arable.
- The world's population is being fed by farming less than 10% of the earth's surface.
- Agriculture has significantly altered more than 60% of the world's land area.
- Salinization, nutrient depletion and erosion degrades approximately 2-6% of agricultural land annually.
- Current known world phosphorus supplies, essential for plant growth, will run out in 2050.
- Only 3% of the world's water is freshwater, agriculture uses over 70% of that water.
- 87% of the world's aquifers are being pumped faster than their recharge rates.
- World population is projected to increase from 6 to 9.6 billion by 2050.
- Currently 17% (1 billion) of world population is malnourished or starving.
- In order to maintain current per capita supplies, food production must double by 2050.

BOTH WILD AND FARMED SEAFOOD NEEDED TO MEET DEMAND FOR HEALTHY DIETS

- Global wild fisheries harvests have plateaued and are not projected to increase.
- Global aquaculture production has increased 10% annually over the last 20 years.
- The U.S. is the third largest seafood market in the world.
- Over 94% of the seafood consumed in the U.S. is imported.
- Seafood imports contribute over \$10 billion annually to the U.S. national trade deficit.
- Less than 2% of those imports are inspected for contamination by FDA.
- Over 55% of seafood imported into the U.S. is farmed.
- By 2035, the U.S. will need 2-4 million additional tons of seafood to meet demand.
- 80% of U.S. aquaculture occurs in freshwater, a limited resource.
- U.S. aquaculture is over a \$1 billion industry.
- U.S. marine aquaculture is 1.5% of U.S. seafood supply.

AQUACULTURE - FOOD PRODUCED IN WATER IS INCREASING

- Water covers more than 70% of the earth's surface.
- Mariculture currently uses less than .004% of the world's total surface area.
- Marine produced food, including wild fisheries, currently contributes only 2% to world food supply.
- Aquatic production of animal protein is 15-20% more efficient than land production.
- Aquatic food production on average uses 2000 times less fresh water than land production.
- Per pound produced, mariculture releases 2-3 times less nitrogen than land agriculture.
- In 2010, for the first time in history, more seafood came from aquaculture than wild fisheries.
- Global aquaculture production is nearly 60 million tons, valued at over \$70 billion.
- Only 1.3% of this production is from North America.
- By 2030 the world will need >50 million additional tons of aquaculture production to maintain current seafood consumption levels.



Sustainable Solutions for Maine's Growing Future

MAINE IS A LEADER IN SUSTAINABLE PRODUCTION OF HEALTHY AQUACULTURE PRODUCTS

- Maine has over 5,000 miles of coastline, only 25 miles of which are still working waterfront.
- Maine has more freshwater than any other state east of the Mississippi.
- Based on farm gate sales, Maine is the Number 1 marine aquaculture producing state.
- Maine has 187 marine grow out farms, 6 marine hatcheries, and 18 freshwater hatcheries.
- Maine marine farmers lease 1,328 acres from the state, less than the size of the Portland jetport.
- Maine aquatic farmers generate over \$100 million in state economic activity annually.
- Maine aquatic farmers directly employ over 600 people and pay over \$8 million in state and local taxes.
- Maine is within a 24 hour truck ride of over 150 million consumers.
- Maine aquatic farmers need clean water and healthy ecosystems to grow healthy food products.
- Maine has some of the strictest and most comprehensive aquaculture regulations in the world.
- Maine aquatic farmers are regulated and monitored by over 14 different state and federal agencies.
- In 1994, Maine Aquaculture members pioneered the first code of containment for fish farms in the world.
- In 1997, Maine Aquaculture members pioneered the first third party aquaculture biosecurity audits in the world.
- In 1998, Maine Aquaculture members pioneered the first marine application of Integrated Pest Management.
- In 2001, Maine Aquaculture organized the first international aquaculture code of practice summit.
- In 2001, Maine Aquaculture members signed a cooperative MOU with three international environmental groups.
- In 2001, Maine Aquaculture members adopt guiding principles and environmental policy based on UN Code of Responsible Fisheries.
- In 2002, Maine Aquaculture members adopted Bay Management Agreements.
- In 2002, Maine Aquaculture members pioneered the first audited escape management system in the world.
- In 2004, Maine Aquaculture members adopted an overarching code of responsible aquaculture production.
- Maine aquatic farmers continue to be recognized by chefs and environmental groups as world leaders in the development of sustainable aquaculture methods.

*Last updated on 1/6/14



Sustainable Solutions for Maine's Growing Future